AUG 1975 RSTS-11 SPECIAL INTEREST GROUP NEWSLETTER VOL.2 NO.3

FROM THE EDITOR

WHEN THE DECUS OFFICE WROTE TO MY OLD ADDRESS AND ASKED WHERE TO SEND THE FLOWERS, I KNEW IT HAD TAKEN TOO LONG FOR ME TO GET THIS EDITION OF THE NEWSLETTER OUT. THERE ARE TWO REASONS FOR THE DELAY. FIRST I HAVE CHANGED JOBS, BUT THE SECOND IS THAT YOU HAVEN'T BEEN SENDING ME ENOUGH TO MAKE UP A NEWSLETTER, EACH YEAR BETWEEN THE DECUS MEETINGS THINGS SEEM TO SLOW DOWN. I HOPE YOU WILL TAKE SOME TIME AND SEND ME THAT RSTS TIP, IDEA, PROBLEM, BUG, ETC., YOU HAVE BEEN PLANNING TO SEND BUT JUST HAVEN'T GOTTEN A ROUND TO IT (SEE DIAGRAM BELOW). THANKS TO GARY OPPENHEIMER, WILLIAM TABOR, AND MURRAY STINSON WHO DID.

THOSE OF YOU THAT HAVE WORRIED THAT I HAVE BEEN OUT OF TOUCH WITH THE REAL WORLD WILL BE HAPPY TO KNOW THAT I HAVE TAKEN A JOB WITH R. LABAR & ASSOC'S. THEY ARE A DEC OEM SPECIALIZING IN INVENTORY CONTROL AND ACCOUNTING SYSTEMS.

A SPECIAL THANKS TO HARVEY WIGGINS FOR LETTING ME USE HIS COMPUTER TO PRINT THIS NEWSLETTER.

BOB BRANTON
R. LABAR & ASSOC.
2750 NORTHAVEN RD., SUITE 102
DALLAS, TX 75229
(214) 243-3451

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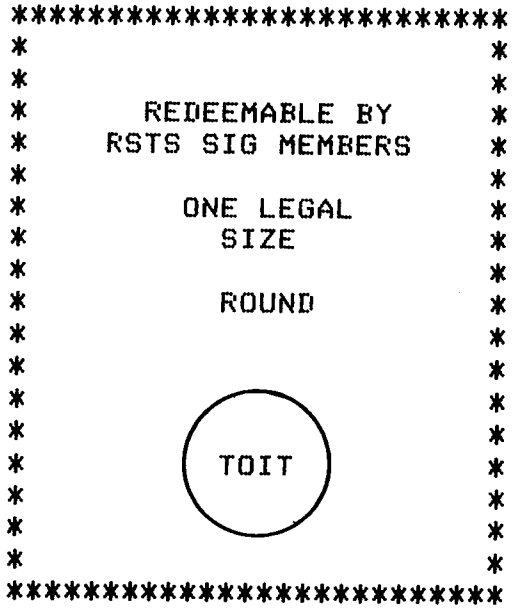

USE IT!!!!!

*** FALL DECUS ***

AUGUST 1 WAS THE DEADLINE FOR MINI-PAPERS FOR THE FALL DECUS SYMPOSIUM, SO I HAD TO SEND IN PAPERS FOR THE SESSIONS INVOLVING THE SIG. I HOPE WE CAN HAVE EXPANDED SIG SESSIONS THIS FALL. IN ADDITION TO THE GENERAL SIG SESSION AND STU KATZ'S COMMERCIAL SUB-GROUP SESSION, I TURNED IN PAPERS FOR A RSTS V4 SESSION AND A RSTS NEW USERS SESSION. I NEED VOLUNTEERS TO PLAN AND WORK ON THESE SESSIONS. PLEASE CONTACT ME IF YOU ARE WILLING TO WORK ON A SESSION.

****

*** COMMITTEES ***

SEVERAL OF THE OTHER DECUS SIGS HAVE GONE TO A COMMI TTEE STRUCTURE IN AN EFFORT TO GET MORE MEMBERS INVOLVED AND SHARE THE WORK OF THE SIG. WE OF COURSE HAVE SOME COMMITTEES: COMMERCIAL SUG-GROUP, RSTS V4 SUB-GROUP, AND THE LIBRARY COMMITTEE HEADED BY HARVEY WIGGINS. I WOULD BE INTERESTED IN YOUR IDEAS FOR OTHER COMMITTEES AND WOULD BE HAPPY TO HAVE VOLUNTEERS TO HELP WITH THE ONES WE ALREADY HAVE AND ANY NEW ONES WE ORGANIZE.

****

*** NOTICES ***

LOOKING FOR 1 OR 2 RP03 DISK DRIVES.

BUD DAWSON
MILLIMAN BLOEDEL
VANCOOVER,CANADA
(604) 683-6711 EX 720

RSTS/E TIMING TEST

BY: GARY OPPENHEIMER
107 CRESTHILL RD
YONKERS, N. Y. 10710
(914) 723-0858

THE SIG MEMBERS MAY BE INTERESTED IN RSTS/E BASIC-PLUS EXECUTION TIMES. THE INSTRUCTIONS THAT FOLLOW WERE EXECUTED 5000 TIMES ON A DEDICATED SYSTEM RUNNING RSTS/E V5-21 WITH 128K MF11-UP CORE MEMORY. SOLID STATE MEMORY WILL NATURALLY HAVE FASTER RUNS. ALL VARIABLES WERE SET AS SHOWN BELOW. ALL OTHERS WERE 0 OR NULL.

NOTE THE 'RND' AND 'RND(X)' FUNCTIONS. THE LATTER TAKES MUCH LONGER TO EXECUTE EVEN THOUGH THE ARGUMENT IS IGNORED.

I WOULD BE INTERESTED IN OTHER SIG MEMBERS COMMENTS OF THESE TIMINGS.

SETTINGS OF VARIABLES*

```
A%=5%
A=5
A$='ABCDE'
DIM A(10)
DIM A%(10)
DIM #4,A$(1000)=512
```

NOTE: -.00034 INDICATES IMPROPER TIMING BY RSTS/E

STATEMENTS	SECONDS	
G%=A%	.00016	
G=A	.00018	
G$=A$	.00022	
G%,G1%=A%	.0002	
G,G1=A	.00024	
G=A%	.00032	
G%=A%+A%	.00022	
G=A+A	.0005	
G%=A%*A%	.00024	
G=A*A	.001	
G%=A%/A%	.00024	
G=A/A	.00052	
!	.00008	
REM	.00008	
DATA 1,2,3,4,5	.00008	
RESTORE	.00012	
RANDONIZE	-.00034	
GOTO 101	.0001	
GOTO 101%	.0001	
ON ERROR GOTO 101	.00012	
*****		
FOR I=1 TO 10		
NEXT I	.00878	
*****		
FOR I%=1% TO 10%		
NEXT I%	.004	
*****		
I=0		
I=I+1		
IF I<10 THEN 20	.00806	
*****		
I%=0%		
I%=I%+1%		
IF I%<10% THEN 20	.00464	
*****		
DEF FNA%(A%)=5%	.00024	
DEF FNA%(A)=5	.00024	
CHANGE A% TO A$	.00054	
CHANGE A TO A$	.00064	
G=ABS(A%)	.00054	
G=ATN(A)	.01522	
G=COS(A)	.01576	
G=EXP(A)	.0105	
G=FIX(1.5)	.0034	
G%=INT(1.5)		.00042
G%=INT(1.5)		.00042
G=LOG(A)	.0143	
G=LOG10(A)	.01524	
G=PI	.00018	
G=RND	.00024	
G=RND(A%)	.00062	
G=SGN(A)	.00028	
G%=SGN(A%)	.00062	

RSTS/E TIMING TEST(CONT.)

STATEMENTS	SECONDS
G=SQR(A)	.01014
G=SIN(A)	.01564
G=TAN(A)	.03338
IF A%<>0% THEN 101	.00024
IF (A%) THEN 101	.00016
IF A%=B% THEN IF C%=D% THEN 101	.00022
IF (A%=B%) AND (C%=D%) THEN 101	.00034
B%=A% AND 2%	.00022
B%=A% OR 2%	.00022
B%=A% XOR 2%	.00024
B% =A% EQV 2%	.00024
B%=A% IMP 2%	.00022
B%=NOT (A%)	.00018
*****	
B$=A$(1%)	
B$=A$(1000)	-.00034
*****	
FOR I%=0% TO 255%	
FIELD #8,(I%*2%) AS D$,2% AS A$	
NEXT I%	.21772
*****	
CHANGE A$ TO A%	.0017
CHANGE A$ TO A	.00298
IF D%=0% THEN B%=1% ELSE IF A%=0% THEN B%=1%	.00032
*****	
IF D%=0% THEN B%=1% ELSE 30	
GOTO 101	
IF A%=0% THEN B%=1%	.0004!
*****	
IF A%=5% THEN B%=1% ELSE IF D%=5% THEN B%=1%	.00032
*****	
IF A%=5% THEN B%=1%	
IF D%=5% THEN B%=1%	.00052
*****	
G$=RIGHT(A$,3%)	.00052
G$=MID(A$,3%,2%)	.00054
G%=LEN(A$)	.00028
G%=INSTR(1%,A$,"C")	.00054
G%=INSTR(1%,A$,"Z")	.0006
Y$=SPACE$(1%)	.00042
Y$=SPACE$(2%)	.00042
Y$=SPACE$(3%)	.00044
Y$=NUM$(A%)	.0042
G%=VAL("5")	.001
Y$=DATE$(0%)	.00104
G=TIME(0%)	-.00034
G%=ERR	.00016
G%=ERL	.00016
G%=SWAP%(432%)	.00022
G$=RAD$(101%)	.00084
G%=ASCII(A$)	.0003
G$=CHR$(A%)	.0004
G$=CVT%$(123%)	.00042
G$=CVTF$(123)	.00052
G%=CVT$%(A$)	.00032
G=CVT$F(A$)	.00038
Y%=POS(0%)	.00066
Y%=PEEK(2%)	.00048
G=ABS(A)	.00026

*****	
FIELD #8%,512% AS D$	
FORI%=1% TO 256%	
A$=MID(D$,(I%*2%-1%),2%)	
NEXT I%	.04246
*****	
G$=LEFT(A$,3%)	.00052
MAT A%=ZER	.07674
MAT A=ZER	.01236
*****	
FOR I%=1% TO 10%	
A%(I%)=0%	
NEXT I%	.0075
*****	
MAT A=CON	.01234
MAT A=IDN	.01416
MAT B%=A%	.10318
B$=A$	.00022
LSET B$=A$	.00034
B$=A$+""	.00056

AUTOMATIC BAUD RATE DETECTION

THE FOLLOWING PATCH TO LOGIN WILL ENABLE ALL RSTS/E SYSTEMS TO USE VARIABLE SPEED TERMINALS ON A DIAL UP BASIS.

```
!!!!!   LOGIN   VERSION 5B      EDIT 12          07/27/74
6 GO TO 100
7  DIM T%(22%):
        O1$=SYS(CHR$(3%)):
        OPEN "KB:" AS FILE 9%:
        FIELD  9%, 20% AS O$:
        IF C%<>0% THEN 91
8 O1$=SYS(CHR$(4%)):
        GET  9%:
        C%=ASCII(C$):
        IF C%>127% THEN C%=C%-127%
9 IF C%=30% OR C%=28% OR C%=14% OR C%=12% THEN 21
                ELSE
        IF C%=13% THEN 50
                ELSE
        IF C%=102% OR C%=70% THEN 30
                ELSE
        IF C%=96% OR C%=64%  THEN 40
10 GO TO 8
21 T%(13%)= 1%:
        T%(14%)=4%:
        GO TO 90
30 T%(13%)=1%:
        T%(14%)=6%:
        GO TO 90
40 T%(14%)=255%:
        T%(16%)=225%:
        GO TO 90
50 T%(13%)=5%:
        T%(14%)=0%
90 T%(1%)=6%:
        T%(2%)=3%:
        T%(3%)=1%:
        T%(10%)=128%:
        T%(4%)=255%:
        T%(0%)=21%:
        CHANGE T% TO T$:
        O$=SYS(T$)
91 CLOSE 9%: GO TO 32600
32000   ON ERROR GOTO 32400
        : OPEN "KB:" AS FILE 1%
        : INPUT LINE  1%,A$
        : A$=CVT$$(A$,-1%)
        : IF A$="I" THEN 7 ELSE A%=0%
        : IF LEN(A$) THEN
                RESTORE ELSE
                        32650
32600   PRINT "PLEASE SAY HELLO"
32650   I$=SYS(CHR$(0%))+SYS(CHR$(2%))
```

```
32700    CLOSE 1%,2%
         : I$=SYS(CHR$(9%))
         : STOP
32767    END
```

******** NOTE *******

THIS PATCH ASSUMES THAT THE DEFAULT (RING INDICATE) SPEED FOR THE PORT IS 300 BAUD. TO USE THE PATCH THE USER MUST TYPE A CARRIAGE RETURN, UPON CONNECTING TO THE COMPUTER. IT WILL THEN DECODE THE CARRIAGE RETURN AND SET THE BAUD RATE TO 110, 150 OR 300 FOR ASCII TERMINALS OR 134.5 FOR 2741 TYPE TERMINALS. AFTER SETTING THE BAUD RATE THE USER WILL RECEIVE THE MESSAGE 'PLEASE SAY HELLO' AT HIS TERMINAL.

FOR FURTHER INFORMATION CALL OR WRITE

FLORIDA COMPUTER RESOURCES, INC.
ATTN: WILLIAM TABOR
99 N.W. 183RD ST.
NORTH MIAMI, FLA. 33169
(305-652-1710)

COMMERCIAL RSTS USER GROUP NEWSLETTER

As of this writing I have received virtually no response to our call for information in the May newsletter. I can assume only three reasons why:

1.) There are no problems or solutions to share.

2.) There is no interest in the Commercial SIG at all.

3.) This is a new SIG and the members just haven't gotten the ball rolling yet, but they will.

For the time being, I'm putting my money on #3.

Again, this section of the Resource Sharer is for the commercial RSTS user to get and receive information about hardware and software, or simply use a "soapbox" for pertinent thought about commercial RSTS use. Also, beginning this month, we will include a marketing section for the members to offer software for sale or trade. For the time being, we will include only a brief description of the product and the contact, not the price. This stance is subject to possible change since I expect some developments in this area in the next few months.

Please send your problems, solutions, products, information, etc., to:

Murray Stinson
Scientific Placement, Inc.
2700 South Post Oak, #2430
Houston, Texas 77027
713-621-9811

RSTS Marketplace

DESCRIPTION	CONTACT
1.) A virtual sort subroutine for sorting up to 32,000 records for all files (include virtual) 2.) An easy to use line editor for editing program or ASCII data files. (automatic verification) 3.) A management information system for RSTS 4.) A jobshop scheduler for the allocation of labor and materials in manufacturing or maintenance 5.) A complete general ledger accounting system includes balance sheet, statements, journals and schedules such as accounts payable. 6.) An interactive payroll package with 941 & W-2. 7.) A complete automotive agency accounting system for GM, FORD and other dealers. An on-line system. 8.) A package of real estate programs - includes amortization schedules, data retrieval and others. 9.) Financial package for bidding and printing holdings of municipal and government bonds.	Al Cordes Houston Timesharing 9039 Katy Freeway #404 Houston, Texas 77024 713-461-5437

1.) Subroutines to phonetically code last names for storage and retrieval via standard phonetic techniques. 2.) Screen generator programs for the Tektronix 4023 buffered CRT terminal. 3.) Complete letter writing system using paragraph/letter files to build custom upper/lower case letters from form paragraphs. System allows insertions as well as a user composed paragraph.	Murray Stinson Scientific Placement, Inc. 2700 South Post Oak, #2430 Houston, Texas 77027 713-621-9811

CODING TIPS FOR RSTS V4

GARY OPPENNHEIMER
107 CRESTHILL RD.
YONKERS, N.Y. 10710

1. DOCUMENTATION:

EACH LINE OF BASIC-PLUS CODE INITIALLY REQUIRES 6 WORDS OF MEMORY (A STATEMENT HEADER) BEFORE ANY CODING. THEREFORE, COMMENTS ON SEPARATE LINES WILL WASTE MEMORY. THE "!" FOLLOWING A PROGRAM STATEMENT IS INVISIBLE TO THE COMPILER. THEREFORE, ITS USE WILL SAVE MEMORY.

2. RUNTIME OVERHEAD:

AVOID 'OPEN'ING FILE IN THE MIDDLE OF A PROGRAM. BUFFER ALLOCATION OCCASIONALLY REQUIRES SWAPPING OUT AND CALL OF A SPECIAL ROUTINE TO CONSOLIDATE AVAILABLE MEMORY. ALWAYS 'OPEN' FILES IN THE BEGINNING OF THE PROGRAM.

3. MAT FUNCTIONS"

AVOID 'MAT' FUNCTIONS - THEY CHEW UP TIME LIKE CRAZY.

4. ERROR ROUTINES"

IN V4A, TRAPPING TO AN ERROR ROUTINE (ON ERROR GOTO) FROM A SUBROUTIINE SEEMS TO CLEAR THE TOP OF THE STACK. WHEN YOU 'RESUME' INTO THE SUBROUTINE, YOU GENERATE A 'RETURN WITHOUT GOSUB' ERROR UPON ENCOUNTERING THE 'RETURN'.